

Patent Claims

1. Pressure mediator having:

a base body (1) with a membrane bed (11), wherein the base body (1) comprises a first material with a first coefficient of thermal expansion; and
a separating membrane (2), which comprises a second material with a second coefficient of thermal expansion smaller than the first coefficient of thermal expansion, wherein the separating membrane (2) is secured in its edge region to the base body (1) in such a way that the membrane bed (11) is covered over by the separating membrane (2), wherein, further, the separating membrane (2) exhibits a separating membrane relief (21), which was formed by embossing against the membrane bed, after securement of the separating membrane to the base body; characterized in that, the embossing of the membrane relief occurred at a temperature of less than about 10°C.

2. Pressure mediator as claimed in claim 1, wherein the embossing of the separating membrane (2) occurred at a temperature of, at most, 0°C, preferably of, at most, -10°C, more preferably of, at most, -20°C, and especially preferably of, at most, -40°C.

3. Pressure mediator as claimed in claim 1 or 2, wherein the separating membrane (2) comprises a corrosion-resistant alloy or tantalum.

4. Pressure mediator as claimed in one of the claims 1 to 3, wherein the base body comprises a VA-steel.

5. Pressure mediator as claimed in one of the preceding claims, wherein the separating membrane (2) is secured to the base body (1) by a self-closing weld seam (22) or braze joint.

6. Method for manufacturing a pressure mediator, comprising the steps of:

- (i) Providing a base body (1) with a membrane bed (11);
 - (ii) securing a separating membrane (2) to the base body (1); and
 - (iii) embossing a relief of the membrane bed (11) onto the separating membrane (2);
- characterized in that,
the step (iii) of embossing occurs at a temperature of, at most, 10°C.

7. Method as claimed in claim 6, wherein the step (iii) of embossing occurs at a temperature of, at most, 0°C, preferably of, at most, -10°C, more preferably of, at most, -20°C, and especially preferably of, at most, -40°C.

8. Method as claimed in claim 6 or 7, wherein the step (iii) of embossing occurs hydraulically.

9. Method as claimed in claim 6 or 7, wherein the step (iii) of embossing occurs at an embossing pressure between 250 and 350 bar.

10. Method as claimed in claim 8, wherein the hydraulic embossing occurs with a hydraulic liquid, whose temperature amounts to not more than 20°C.